BATTELLE MEMORIAL INSTITUTE

Duxbury Marine Lab Grew From Shipwreck

By PAUL SALTERS
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DUXBURY — A storm in 1924 dashed a schooner ashore at Snug Harbor, and a world leading research center sprouted from the wreckage.

Floating Lab

The schooner was a floating laboratory owned by Dr. William F. Clapp, a research scientist at Harvard University, who summered in Duxbury on Washington Street.

When the schooner was driven ashore by the storm, he transferred all his equipment to a few outbuildings at his home to continue what he had started — a detailed study of marine biological deterioration.

His main interest was the effect of ship worms and borers on various woods exposed in the water, and the laboratory became the leading authority on the subject.

It was no surprise to the Navy, for example, when one of the piers built off the Alaskan coast collapsed into the sea three months after it had been built.

Nor was it a surprise that wooden hull PT boats might one day suddenly disintegrate, not from an enemy shell, but from ship worms which had eaten the wood into a spongy mass.

The laboratory is now owned by Battelle Memorial Institute, a non-profit research and design firm of Columbus, Ohio.

Dr. Paul F. Nace, an endocrinologist formerly working out of the marine biology laboratory at Woods Hole, heads the Duxbury operation.

The center now will expand its research into clam and oyster cultures, and Duxbury Bay will ultimately wind up as a vast test tube for the laboratory's research.

"We want to find out what factors inhibit or expand the growth of clams and oysters. I thihk now you can find a few oysters in the bay, but we want to see if we can start whole colonies out there," he said, pointing to the water.

"A lot of other factors have to be taken into consideration, though," he said.

"We will probably do research for the federal government into mussel colonies. Sometimes a nuclear-powered submarine can't go anywhere under water because it has become immobilized by thousands of clusters of mussels."

Dr. Nace also admitted that his hobby — fishing for striped bass and bluefish — depends on part of his research into pollution effects on the fish as well as clams and oysters.

"We plan to conduct tests all along the coast to find out how much pollution affects clams and at what stage of their development they may become immune to pollution."

No Control

"Right now, we're dependent of Chesapeake Bay for our stripers and bluefish. We have no control over conditions in those waters, but we may come up with something here," he said.

The laboratory has hired two Ph.D's to carry out its research work on clams, oysters, scallops and the like. Dr. John Blake is a specialist on quahog and clams and Dr. Robert Hillman specializes in growing oysters.

"We hope to get Massachusetts Bay back in shape," Dr. Nace said.

To get Massachusetts Bay back in shape, the laboratory now is looking for salt water from Duxbury bay to use in its test tanks so they can grow oysters, clams, scallops and mussels under laboratory conditions first.

So far, they have struck fresh water only.

"It is strange to drive wells only 15 feet or so from the water's edge and come up with fresh water," Dr. Nace said.

Filtered Water

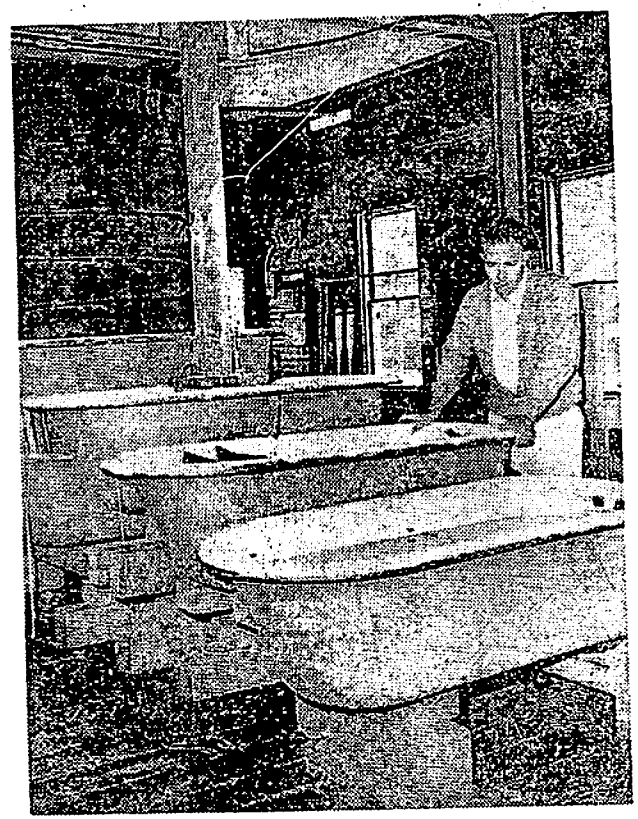
"We want to get the salt water from wells on the land so it will be filtered through sand first before we get it. The water will be better for laboratory work."

The laboratory's testing station is a crude wooden building filled with ancient bathtubs. The bathtubs are the testing troughs used for culture research.

In the laboratory are wood pilings that demonstrate every conceivable stage of ship worm destruction. The wood interiors of the pilings, for the most part, have been chewed into lacy grillwork that would scarcely support any weight.

Several of the bathtubs are now used for clam and mussel cultures and afre filled with sand instead of wood.

It may be that in a few years, Duxbury residents will have only to go to the bay instead of the fish store if they want oysters on the half shell for dinner.



NOT FOR BATHING — Marine Biologist Robert Hillman of Kingston inspects bathtubs at the Clapp Laboratory in Duxbury used for culture research in marine life.

(Patriot Ledger Staff Photo by Everett A. Tatreau)